



IFW16

RAW SEQUENCE LISTING

DATE: 08/09/2004

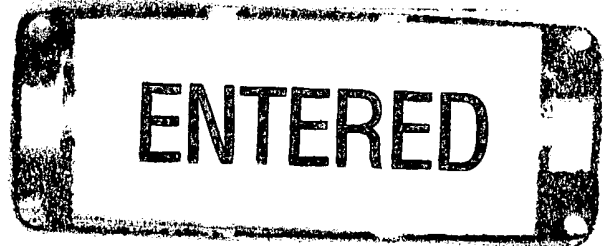
PATENT APPLICATION: US/09/646,950C

TIME: 10:46:23

Input Set : A:\ERP01.004APC.TXT

Output Set: N:\CRF4\08092004\I646950C.raw

4 <110> APPLICANT: Watts, Colin
 6 <120> TITLE OF INVENTION: USE OF INHIBITORS OF MAMMALIAN
 7 ASPARAGINAYL ENDOPEPTIDASE FOR THERAPY OF AUTOIMMUNE DISEASE
 10 <130> FILE REFERENCE: ERP01.004APC
 12 <140> CURRENT APPLICATION NUMBER: 09/646,950C
 13 <141> CURRENT FILING DATE: 2000-12-08
 15 <150> PRIOR APPLICATION NUMBER: WO99/48910
 16 <151> PRIOR FILING DATE: 1999-03-26
 18 <150> PRIOR APPLICATION NUMBER: US60/086,966
 19 <151> PRIOR FILING DATE: 1998-05-28
 21 <150> PRIOR APPLICATION NUMBER: GB9806442.1
 22 <151> PRIOR FILING DATE: 1998-03-26
 24 <160> NUMBER OF SEQ ID NOS: 39
 26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 28 <210> SEQ ID NO: 1
 29 <211> LENGTH: 4
 30 <212> TYPE: PRT
 31 <213> ORGANISM: Artificial Sequence
 33 <220> FEATURE:
 34 <223> OTHER INFORMATION: peptide sequence which may be comprised in a
 35 competitive inhibitor of AEP
 38 <400> SEQUENCE: 1
 39 Ala Glu Asn Lys
 40 1
 43 <210> SEQ ID NO: 2
 44 <211> LENGTH: 4
 45 <212> TYPE: PRT
 46 <213> ORGANISM: Artificial Sequence
 48 <220> FEATURE:
 49 <223> OTHER INFORMATION: peptide sequence which may be comprised in a
 50 competitive inhibitor of AEP
 52 <400> SEQUENCE: 2
 53 Lys Asn Asn Glu
 54 1
 57 <210> SEQ ID NO: 3
 58 <211> LENGTH: 295
 59 <212> TYPE: PRT
 60 <213> ORGANISM: Homo sapiens
 62 <400> SEQUENCE: 3
 63 Met His Arg Arg Arg Ser Arg Ser Cys Arg Glu Asp Gln Pro Val Met
 64 1 5 10 15
 65 Asp Asp Gln Arg Asp Leu Ile Ser Asn Asn Glu Gln Leu Pro Met Leu
 66 20 25 30



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67 Gly Arg Arg Pro Gly Ala Pro Glu Ser Lys Cys Ser Arg Gly Ala Leu
68           35           40           45
69 Tyr Thr Gly Phe Ser Ile Leu Val Thr Leu Leu Leu Ala Gly Gln Ala
70           50           55           60
71 Thr Thr Ala Tyr Phe Leu Tyr Gln Gln Gln Gly Arg Leu Asp Lys Leu
72 65           70           75           80
73 Thr Val Thr Ser Gln Asn Leu Gln Leu Glu Asn Leu Arg Met Lys Leu
74           85           90           95
75 Pro Lys Pro Pro Lys Pro Val Ser Lys Met Arg Met Ala Thr Pro Leu
76           100          105          110
77 Leu Met Gln Ala Leu Pro Met Gly Ala Leu Pro Gln Gly Pro Met Gln
78           115          120          125
79 Asn Ala Thr Lys Tyr Gly Asn Met Thr Glu Asp His Val Met His Leu
80           130          135          140
81 Leu Gln Asn Ala Asp Pro Leu Lys Val Tyr Pro Pro Leu Lys Gly Ser
82 145          150          155          160
83 Phe Pro Glu Asn Leu Thr His Leu Lys Asn Thr Met Glu Thr Ile Asp
84           165          170          175
85 Trp Lys Val Phe Glu Ser Trp Met His His Trp Leu Leu Phe Glu Met
86           180          185          190
87 Ser Arg His Ser Leu Glu Gln Lys Pro Thr Asp Gln Pro Pro Lys Val
88           195          200          205
89 Leu Thr Lys Cys Gln Glu Glu Val Ser His Ile Pro Ala Val His Pro
90           210          215          220
91 Gly Ser Phe Arg Pro Lys Cys Asp Glu Asn Gly Asn Tyr Leu Pro Leu
92 225          230          235          240
93 Gln Cys Tyr Gly Ser Ile Gly Tyr Cys Trp Cys Val Phe Pro Asn Gly
94           245          250          255
95 Thr Glu Val Pro Asn Thr Arg Ser Arg Gly His His Asn Cys Ser Glu
96           260          265          270
97 Ser Leu Glu Leu Glu Asp Pro Ser Ser Gly Leu Gly Val Thr Lys Gln
98           275          280          285
99 Asp Leu Gly Pro Val Pro Met
100          290          295
103 <210> SEQ ID NO: 4
104 <211> LENGTH: 24
105 <212> TYPE: PRT
106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: sequence preceding tetanus toxin fragment
111 <400> SEQUENCE: 4
112 Met Gly His Gly His His His His His His His His His Ser Ser
113 1           5           10           15
114 Gly His Ile Glu Gly Arg His Ile
115           20
118 <210> SEQ ID NO: 5
119 <211> LENGTH: 36
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence

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123 <220> FEATURE:
124 <223> OTHER INFORMATION: primer
126 <400> SEQUENCE: 5
127 cgctacactc cgaacgcggc gatcgattct ttcgtt 36
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 24
131 <212> TYPE: DNA
132 <213> ORGANISM: Artificial Sequence
134 <220> FEATURE:
135 <223> OTHER INFORMATION: primer
137 <400> SEQUENCE: 6
138 agcggataac aatttcacac agga 24
140 <210> SEQ ID NO: 7
141 <211> LENGTH: 17
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: primer
148 <400> SEQUENCE: 7
149 gtaaaacgac ggccagt 17
151 <210> SEQ ID NO: 8
152 <211> LENGTH: 24
153 <212> TYPE: PRT
154 <213> ORGANISM: Artificial Sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: synthetic transferrin peptide
159 <400> SEQUENCE: 8
160 Gln Gln Gln His Leu Phe Gly Ser Asn Val Thr Asp Cys Ser Gly Asn
161 1 5 10 15
162 Phe Cys Leu Phe Arg Lys Lys Lys
163 20
166 <210> SEQ ID NO: 9
167 <211> LENGTH: 9
168 <212> TYPE: PRT
169 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: cleavage fragment from synthetic transferrin
173 peptide
175 <400> SEQUENCE: 9
176 Gln Gln Gln His Leu Phe Gly Ser Asn
177 1 5
180 <210> SEQ ID NO: 10
181 <211> LENGTH: 15
182 <212> TYPE: PRT
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: cleavage fragment from synthetic transferrin
187 peptide
189 <400> SEQUENCE: 10

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190 Val Thr Asp Cys Ser Gly Asn Phe Cys Leu Phe Arg Lys Lys Lys
191 1 5 10 15
194 <210> SEQ ID NO: 11
195 <211> LENGTH: 8
196 <212> TYPE: PRT
197 <213> ORGANISM: Artificial Sequence
199 <220> FEATURE:
200 <223> OTHER INFORMATION: cleavage fragment from synthetic transferrin
201 peptide
203 <400> SEQUENCE: 11
204 Phe Cys Leu Phe Arg Lys Lys Lys
205 1 5
208 <210> SEQ ID NO: 12
209 <211> LENGTH: 21
210 <212> TYPE: PRT
211 <213> ORGANISM: Homo sapiens
213 <400> SEQUENCE: 12
214 Gln Gln Gln His Leu Phe Gly Ser Asn Val Thr Asp Cys Ser Gly Asn
215 1 5 10 15
216 Phe Cys Leu Phe Arg
217 20
220 <210> SEQ ID NO: 13
221 <211> LENGTH: 16
222 <212> TYPE: PRT
223 <213> ORGANISM: Homo sapiens
225 <400> SEQUENCE: 13
226 Gln Gln Gln His Leu Phe Gly Ser Asn Val Thr Asp Cys Ser Gly Asn
227 1 5 10 15
230 <210> SEQ ID NO: 14
231 <211> LENGTH: 5
232 <212> TYPE: PRT
233 <213> ORGANISM: Homo sapiens
235 <400> SEQUENCE: 14
236 Phe Cys Leu Phe Arg
237 1 5
240 <210> SEQ ID NO: 15
241 <211> LENGTH: 12
242 <212> TYPE: PRT
243 <213> ORGANISM: Homo sapiens
245 <400> SEQUENCE: 15
246 Val Thr Asp Cys Ser Gly Asn Phe Cys Leu Phe Arg
247 1 5 10
250 <210> SEQ ID NO: 16
251 <211> LENGTH: 9
252 <212> TYPE: PRT
253 <213> ORGANISM: Homo sapiens
255 <400> SEQUENCE: 16
256 Gln Gln Gln His Leu Phe Gly Ser Asn
257 1 5

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260 <210> SEQ ID NO: 17
261 <211> LENGTH: 210
262 <212> TYPE: PRT
263 <213> ORGANISM: Homo sapiens
265 <400> SEQUENCE: 17
266 Met Asp Asp Gln Arg Asp Leu Ile Ser Asn Asn Glu Gln Leu Pro Met
267 1 5 10 15
268 Leu Gly Arg Arg Pro Gly Ala Pro Glu Ser Lys Cys Ser Arg Gly Ala
269 20 25 30
270 Leu Tyr Thr Gly Phe Ser Ile Leu Val Thr Leu Leu Leu Ala Gly Gln
271 35 40 45
272 Ala Thr Thr Ala Tyr Phe Gln Gln Gln Gly Arg Leu Asp Lys Leu Thr
273 50 55 60
274 Val Thr Ser Gln Asn Leu Gln Leu Glu Asn Leu Arg Met Lys Leu Pro
275 65 70 75 80
276 Lys Pro Pro Lys Pro Val Ser Lys Met Arg Met Ala Thr Pro Leu Leu
277 85 90 95
278 Met Gln Ala Leu Pro Met Gly Ala Leu Pro Gln Gly Gln Asn Ala Thr
279 100 105 110
280 Lys Tyr Gly Asn Met Thr Glu Asp His Val Met His Leu Leu Gln Asn
281 115 120 125
282 Ala Asp Pro Leu Lys Val Tyr Pro Pro Leu Lys Gly Ser Phe Pro Glu
283 130 135 140
284 Asn Leu Thr His Leu Lys Asn Thr Met Glu Thr Ile Asp Trp Lys Val
285 145 150 155 160
286 Phe Glu Met His His Trp Leu Leu Phe Glu Met Ser Arg His Ser Leu
287 165 170 175
288 Glu Gln Lys Pro Thr Asp Ala Pro Pro Lys Glu Ser Leu Glu Leu Glu
289 180 185 190
290 Asp Pro Ser Ser Gly Leu Gly Val Thr Lys Gln Asp Leu Gly Pro Val
291 195 200 205
292 Pro Met
293 210
296 <210> SEQ ID NO: 18
297 <211> LENGTH: 10
298 <212> TYPE: PRT
299 <213> ORGANISM: Clostridium tetani
301 <400> SEQUENCE: 18
302 Arg His Ile Asp Asn Glu Glu Asp Ile Asp
303 1 5 10
306 <210> SEQ ID NO: 19
307 <211> LENGTH: 10
308 <212> TYPE: PRT
309 <213> ORGANISM: Clostridium tetani
311 <400> SEQUENCE: 19
312 Tyr Thr Pro Asn Asn Glu Ile Asp Ser Phe
313 1 5 10
316 <210> SEQ ID NO: 20
317 <211> LENGTH: 10

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VERIFICATION SUMMARY

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